

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2004-347053

(43)Date of publication of application : 09.12.2004

(51)Int.Cl.

F16J 1/01

F02F 1/00

F16C 17/00

F16C 33/12

// C23C 16/27

(21)Application number : 2003-146076

(71)Applicant : NISSAN MOTOR CO LTD

(22)Date of filing : 23.05.2003

(72)Inventor : MABUCHI YUTAKA

HAMADA TAKAHIRO

KANO MAKOTO

OTA TOMOHITO

(54) HARD CARBON COATING SLIDING MEMBER

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a hard carbon coating sliding member capable of providing very excellent wear resistance and low friction characteristics under the presence of lubricating oil in, for example, an internal combustion engine by remarkably improving the friction characteristics on the uppermost surface of the sliding member while making use of the characteristics of a resin material with high elasticity.

SOLUTION: In a base material formed of a steel material and an aluminum material, an elastic layer formed of rubber or resin or formed by adding additive particles such as solid lubricant to the rubber or resin is formed, as an intermediate layer, on a portion slid on a mating material through lubricating oil. Also, a hard carbon coating such as DLC is formed on the surface of the intermediate layer.